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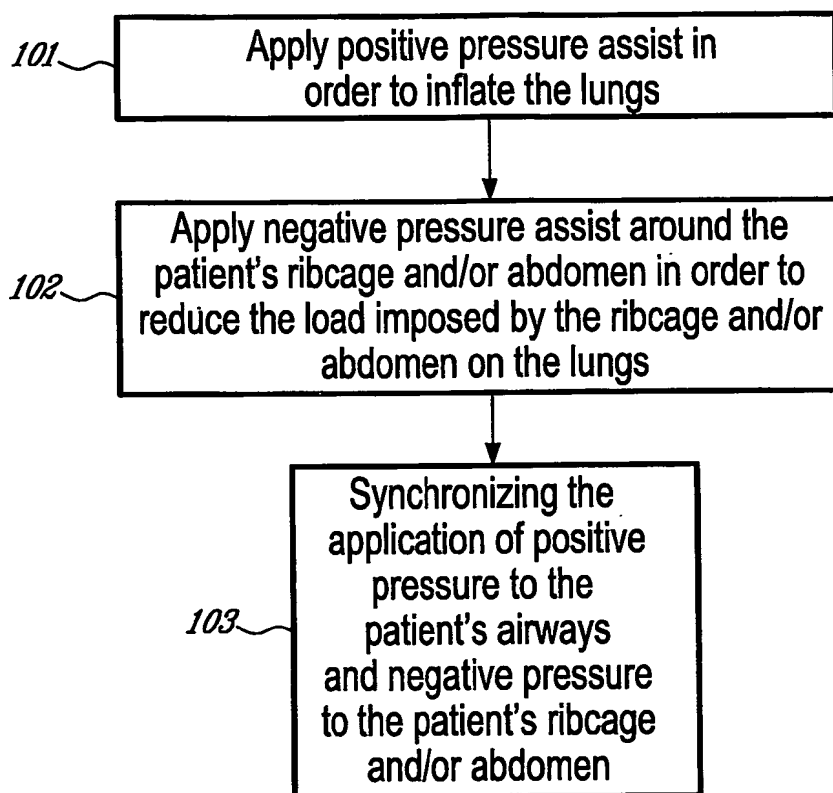
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(54) Title: COMBINED POSITIVE AND NEGATIVE PRESSURE ASSIST VENTILATION



(57) **Abstract:** The present invention relates to a method of delivering combined positive and negative pressure assist ventilation to a patient, wherein a positive pressure is applied to the patient's airways to inflate the patient's lungs, a negative pressure is applied around the patient's ribcage and/or abdomen in order to reduce a load imposed by the ribcage and/or abdomen on the patient's lungs, and application of the positive and negative pressures is synchronized. The present invention also relates to a system for delivering combined positive and negative pressure assist ventilation to a patient, comprising a positive pressure ventilator connected to the patient's airways for applying a positive pressure to the patient's airways to inflate the patient's lungs, a negative pressure ventilator installed on the patient's ribcage and/or abdomen for applying a negative pressure around the patient's ribcage and/or abdomen in order to reduce a load imposed by the ribcage and/or abdomen on the patient's lungs, and a controller for synchronising operation of the positive and negative pressure ventilators.

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